STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

03012987

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   Timber Sale Name: **LUNDIMO** *Agreement #:* 78973

2. Name of applicant: Department of Natural Resources

3. Address and phone number of applicant and contact person:

   Bob McKellar
   Department of Natural Resources
   P.O. Box 190
   Colville, WA 99114-0190 (509) 684-7474

4. Date checklist prepared: April 14, 2006

5. Agency requesting checklist: Department of Natural Resources (DNR)

6. Proposed timing or schedule (including phasing, if applicable):

   a. *Auction Date:* December 12, 2006
   b. *Planned contract end date (but may be extended):* November 30, 2008
   c. *Phasing:* None

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   Yes, there are plans for future activity. Some broadcast burning may take place to aid in the establishment of planted and natural regeneration seedlings. All units will be planted on the completion of this project to promote regeneration of project area. Grass seeding will also take place upon completion of this project to reduce potential for soil erosion and sediment delivery into streams.

   Timber Sale

   a. *Site preparation:*

      Normal ground disturbance will occur with yarding operations. This is expected to promote regeneration of the proposal area. All units may be whip felled where standing regeneration has poor crown to height ratios to provide growing space thereby reducing competition for planted species. Some broadcast burning may occur, if needed.

   b. *Regeneration Method:*

      All units are to be planted with a mixture of western larch and ponderosa pine. Units 1, 2, 4, and 5 will be planted with approximately 300 trees per acre (TPA) with a mixture of western larch and ponderosa pine. Unit 3 will be planted at approximately 200 TPA due to the higher number of leave trees and healthy natural regeneration on site with a mixture of western larch and ponderosa pine as well. All units will be planted using a microsite strategy concentrating the appropriate species within the appropriate microsites across the project area. Natural regeneration is also expected in all units. Areas

with existing concentrations of healthy natural regeneration will be avoided during harvest operations to protect the existing growing stock.

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c. *Vegetation Management:*

Ditch lines, headwalls, catch basins, and skid trails will be seeded with a grass mixture to minimize surface erosion, promote soil rehabilitation, and reduce the spread of noxious weeds. The district will continue its aggressive roadside noxious weeds program, combined with road closures, to minimize noxious weed introduction and spread.

d. *Thinning:*

No thinning will occur as part of this proposal. Precommercial thinning may be scheduled if needed in the future.

Other:

In the event that a significant natural disturbance such as a fire or wind throw event should occur on the site after harvest activities have taken place, salvage operations may occur. Firewood cutting from slash piles and near roads may occur after harvest activities are completed.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐ *303 (d) – listed water body in WAU:* ☐ *temp* ☐ *sediment* ☐ *completed TMDL (total maximum daily load):*
☐ *Landscape plan:*
☐ *Watershed analysis:*
☐ *Interdisciplinary team (ID Team) report:*
☒ *Road design plan:* Department of Natural Resources Road Plan dated June 28, 2006
☐ *Wildlife report:*
☐ *Geotechnical report:*
☒ *Other specialist report(s):* Water Type Inspection Form, Curlew Road Maintenance and Abandonment Plan
☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☐ *Rock pit plan:*
☒ *Other:* GIS generated WAU maps showing soil type, mass wasting potential, erosion potential, and soil stability of the Emmanuel Creek and Curlew Creek WAUs, Department of Natural Resources (DNR) TRAX, Washington Department of Fish and Wildlife (WDFW) Heritage database, DNR Forest Resource Plan, DNR Smoke Management Plan April 1993, DNR Road Maintenance and Abandonment Plan (RMAP) No. R2302717 (Curlew Road Management Block), and the State Soil Survey.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No, there are no pending proposals directly affecting the property covered by this proposal.

10. List any government approvals or permits that will be needed for your proposal, if known.

☐ *HPA* ☒ *Burning permit* ☐ *Shoreline permit* ☐ *Incidental take permit* ☒ *FPA #* _____ ☐ *Other:*

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. *Complete proposal description:*

This proposal is located within the Emanual Creek and Curlew Creek WAUs approximately three miles southwest of Curlew, Washington. The proposal area is 312 gross acres plus five acres of unit exterior right of way, of which there are 310 (305 acres net unit harvest acreage plus 5 acres unit exterior right of way harvest acreage) net acres proposed for harvest of approximately 2,402 Mbf of conifer timber in five separate harvest units. Harvest systems will be ground based and line skidding operations (Units 1, 2, 3, and 5 are ground based and Unit 4 is designated to be line skid). Rubber-tired or track mounted machinery may be used.

The transportation system used throughout this proposal will be upgraded to meet or exceed current Forest and Fish Standards. As a result of this proposal, drainage will be upgraded throughout the proposal area. There will be 20,929 feet of road construction (includes new construction, reconstruction, and optional reconstruction) proposed as part of this project. Approximately 39,439 feet of road (existing and new construction) will be closed behind existing gates at the end of proposal.

b. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*

All units within this proposal are dominated by a mixture of 80 to 120 year old Douglas fir, ponderosa pine, and western larch with small areas of Engelmann spruce in Unit 1. Live crowns are approximately 25% to 40% of tree heights. The over story of all units are dominated by Douglas fir in moister aspects and ponderosa pine in drier aspects with pockets of western larch dominance. In Unit 1 the Douglas fir and western larch are infected with dwarf mistletoe. There are pockets of *Armillaria* within the Douglas fir in all units. These pockets are localized and affect less than five acres throughout the proposal area. Excluding large diameter remnants, average stand diameters range from 12 to 16 inches at breast height (dbh).

Units 1, 2, 4, and 5 will be even-age managed leaving 8 to 16 dominate or co-dominate trees of the healthiest available trees per acre giving preference to ponderosa pine then western larch. Unit 3 will be an uneven-age managed leaving 19 to 23 dominate and co-dominate of the healthiest available trees per acre.

Within Unit 3, areas that the natural regeneration was significant (more than 150 TPA) fewer leave trees were marked. Conversely in areas where there was little or no natural regeneration more trees were marked to be left (more than 21TPA).

The objectives of the harvest will include but will not be limited to: generating revenue for the common school trust, reducing dwarf mistletoe in the western larch, increasing the ponderosa pine and western larch component of the stand, retaining wildlife and green recruitment trees for the purpose of wildlife cover and habitat, increasing the over-all health and vigor of the stands for future production, and the diversification of age classes across ownerships to reduce risk of catastrophic fire.

c. *Road activity summary. See also forest practice application (FPA) for maps and more details.*

In addition to the work described above all roads will be insloped or outsloped and have drainage dips, water bars, and ditch lines where appropriate to minimize surface erosion and the direct deposit of sediment into streams. Best management practices outlined by the DNR in the Curlew Road Management Block of the Department's Road Maintenance and Abandonment Plan will be utilized.

Of the reconstruction listed below 4,871 feet is optional. Approximately 32,394 feet of routine road maintenance is also included with this proposal.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		14,486	13	0
Reconstruction		6,443		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	2			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. *(See timber sale map. See also color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. Legal description: Sections 15, 16, 32 and 33, all in Township 39 North, Range 33 East, W.M.

b. *Distance and direction from nearest town (include road names):*

Approximately three miles southwest of Curlew, Washington (Lundimo Meadows Road).

c. *Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")*

WAU Name	WAU Acres	Proposal Acres
EMANUEL CREEK	22,345	275
CURLEW CREEK	23,298	40

13. *Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)*

This proposal is located in the Emanual Creek and Curlew Creek WAUs. The following is a summary of observations made utilizing forest practices information, ortho photos, DNR WAU maps and local knowledge.

Emanual Creek WAU:

DNR Activities: DNR ownership comprises approximately 4% of the WAU. Since 1999, no acres of uneven-aged harvest Forest Practice Applications (FPAs) have been approved on DNR managed lands and no acres of even-aged harvest FPAs have occurred within the Emanual Creek WAU on DNR managed lands. No additional harvests are known to be proposed at this time on DNR managed lands within the WAU.

Non-DNR Activities: Non-DNR ownership is approximately 96% of the WAU (of which there is a near even split between private and federal ownership, 48% federal and 47% private). Since 1999, 630 acres of uneven-aged harvest FPAs have been approved on non-DNR, non-federal managed lands and 53 acres of even-aged harvest FPAs have been approved within the Emanual Creek WAU (107 acres of salvage FPAs have also been approved). Based on information provided by the USFS Republic Ranger District there have been no harvest units in the WAU that fits the evenage or uneven-age classification within the last seven years. No additional harvests are known to be proposed at this time on non-DNR managed lands within the WAU but it is expected that private forest harvest activities will occur.

Curlew Creek WAU:

DNR Activities: DNR ownership comprises approximately 6% of the WAU. Since 1999, seven acres of unevenaged harvest FPAs have been approved on DNR managed lands and one acre of evenaged harvest FPAs have occurred within the Curlew Creek WAU on DNR lands. No additional harvests are known to be proposed at this time on DNR managed lands within the WAU.

Non-DNR Activities: Non-DNR ownership is approximately 94% of the WAU (most of which is under private ownership, 77% of the WAU, and 17% of which is under federal management). Since 1999, 2,327 acres of unevenaged harvest FPAs have been approved on non-DNR, non-federal managed lands and 267 acres of even-aged harvest FPAs have been approved within the Curlew Creek WAU (there have also been 28 acres of salvage FPAs approved). Based on information provided by the USFS Republic Ranger District there have been no harvest units in the WAU that fits the evenage or unevenage classification within the last seven years. No additional harvests are known to be proposed at this time on non-DNR managed lands within the WAU but it is expected that private forest harvest activities will occur.

Both WAUs USFS Activities. As stated above there have not been any evenage or uneven-age harvest types in the two WAUs in the last seven years (as classified by the Forest Practices rules). Within the two WAUs there have been 674 acres of commercial thinning activities and 70 acres of salvage harvest within the last seven years on USFS managed lands. It is not known how much or when additional USFS activities will occur in the future for these two WAUs.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☐Rolling, ☒Hilly, ☐Steep Slopes, ☐Mountainous, ☐Other:

1) *General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).*

The below is based on GIS generated reports on WAU characteristics and examination of 1996 orthophotos.

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Emanual Creek WAU

The general terrain of the WAU includes flat benches, bluffs, mountainous steep slopes, and valleys with slopes averaging two to 70 percent. Precipitation within the WAU averages from 10 to 20 inches a year (with a weighted average of 14 inches per year). Elevations range from 1,800 feet. to 5,100 feet (with a mean elevation of 3,243 feet). Major timber types include Douglas fir, Douglas fir/western larch, Douglas fir/ponderosa pine (lower elevations), subalpine fir (higher elevations), and scattered pockets of Engelmann spruce.

Approximately 60% of the WAU is forested and 40% of the WAU is non-forested (this non-forested sub group includes active agriculture lands).

Curlew Creek WAU

The general terrain of the WAU includes flat benches, bluffs, mountainous steep slopes, and valleys with slopes averaging two to 70 percent. Precipitation within the WAU averages from 10 to 20 inches a year (with a weighted average of 14 inches per year). Elevations range from 1,800 feet. to 5,400 feet (with a mean elevation of 2,961 feet). Major timber types include Douglas fir, Douglas fir/ western larch, Douglas fir/ponderosa pine (lower elevations), subalpine fir (higher elevations), and scattered pockets of Engelmann spruce.

Approximately 62% of the WAU is forested and 38% of the WAU is non-forested (this non-forested sub group includes active agriculture lands).

2) *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*

The elevation of the proposal is between 1,800 and 3,800 feet. The proposal mainly consists of Douglas fir and ponderosa pine dominated stands with scattered western larch. Aspect of the proposal area tend to be north or northwest.

b. What is the steepest slope on the site (approximate percent slope)?

75% on 10% of the site (all of which is in Unit 4)

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

After examining the table below, it can be seen that a majority of the proposal area lies on soils that have a medium or low potential of mass wasting. It can also be seen below that about one third of the proposal has a medium potential for erosion and that about one quarter has a high erosion potential. The high erosion potential soil type is listed as loam below and the majority of this soil type is found within Unit 2. This area is typified by "rolling" ground in which there are several draws and flat areas. This area already has a road system established and has been harvested before. There are no significant erosion events that are known to have occurred in this soil type in this area. All roads that will be built on ground steeper than 65% will be full bench construction with end haul, and all roads built on ground steeper than 35% will be one-half bench construction. This requirement is expected to reduce the potential for both valuable infrastructure failure and sediment delivery down-slope.

The proposal averages approximately 40% slope, which corresponds fairly well with that which is reflected on the soil survey below.

Although soils within the area may have erosion potential, great care was taken when laying out road and harvest unit boundary locations to avoid the possibility of sediment delivery to streams, and erosion in general. All streams and wetlands were buffered with the RMZs described in the Washington State Forest Practice manual. As an added precaution, all roads designated for new construction, reconstruction, and prehaul maintenance will be grass seeded, out sloped and water barred, to reduce potential for erosion and mass wasting.

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
2490	Loam	25-45	95	Medium	Medium
6816	Rock Outcrop-Xerochrepts-Complex	45-70	78	No Data	No Data
4778	Loam	25-50	68	Low	High
9417	Xerochrepts-Rock Outcrop-Complex	15-45	35	Medium	Medium
4292	Lithic Haploxerolls-Rock Outcrop Complex	30-50	17	Low	Medium
4852	Loam	0-25	4	Insignificant	Medium
4296	Lithic Xerochrepts-Rock Outcrop Complex	15-50	2	Low	High
2505	Loam	0-8	1	No Data	Low
6771	Rock Outcrop	50-90	0	No Data	No Data
8217	Gravelly Sandy Loam	0-25	0	Insignificant	Low
9431	Very Gravelly Sandy Loam	45-70	0	High	High

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) *Surface indications:*

There are no apparent surface indications in the vicinity of the sale area to imply significant instability of the surface strata.

2) *Is there evidence of natural slope failures in the sub-basin(s)?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*

There is evidence of small local failures that have occurred naturally on stream banks of streams throughout the two WAUs. These failures usually occur on steep banks and are usually associated with natural stream channel morphology.

3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?* 02012987
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
Associated management activity:

Small local events can be observed along cut banks of main county and other roads within the WAUs. These consist primarily of sloughing of material into ditches and occasionally onto road surfaces.

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☐*No* ☒*Yes, describe similarities between the conditions and activities on these sites:*

Sites and soil types located within this proposal are similar to other small local events within the WAUs. Roads have been located on as gentle ground as possible. Adequate preventative and corrective measures will be taken to avoid any resource or capital improvement damage due to soil erosion.

5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

All harvest units have been designed with slope stability protection measures in mind. All of this proposal area with the exception of Unit 4 has been entered for timber harvest previously (all areas entered in the 1930s and 1940s, based on evidence found on the ground and DNR forest inventories). It appears that ground based systems were used and there is no evidence that the previous entries caused significant erosion. In this proposal it was decided to construct a new road to access Unit 3 (E393321B). It appears that during the previous harvest the timber was skid to the west and out Emanual Creek. All typed waters have been buffered to meet or exceed distances required by Forest Practice rules. Legacy and reserve trees have been scattered throughout all units to aid in soil and slope stability. Additionally, all harvest units will be planted within two years of the completion of this project in order to accelerate the revegetation of the units and enhance soil strength.

Some new road construction will be required as part of this proposal. All new roads have been located on as gentle ground as possible in order to reduce the amount of excavation, road cuts, and side cast required, and will be maintained or reconstructed to allow for proper drainage as prescribed in the Forest Practice rules. Proper road maintenance, coordinated skidding patterns and landing locations, and effective contract administration should minimize the erosion potential. Water bars or drivable dips, ditching and cross drains, outsloping, monitoring, and revegetation will be utilized. All measures were designed to meet or exceed Forest Practice regulations. Road surfaces will be outsloped, insloped, or crowned. On crowned and insloped portions of roads, ditch lines and cross drains will be installed. Cross drain structures will conduct water out onto natural vegetation on the forest floor. Energy dissipating structures will be placed at the outfall of cross drains where necessary to prevent erosion. Ditch lines and cut and fill slopes will be revegetated. Best management practices outlined by the DNR in the submitted Curlew Road Maintenance and Abandonment Plan will be utilized. On slopes greater than 25%, main skid trails will be water barred and/or have slash scattered on them. Within 200 feet of typed waters, skid trails will be water barred, have slash scattered on them, and/or be revegetated. Haul will not occur during spring breakup (generally between March 15 and May 15).

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Approx. acreage new roads: 10 (includes optional construction)
Approx. acreage new landings: 6 Acres
Fill source: N/A

There will be some grading and filling associated with this proposal to bring some areas of existing roads up to haul specifications. Fill will be generated from road beds and cut slopes near the fill locations. There will also be a significant amount of fill generated from the full bench construction of the E393315A road that accesses the top of Unit 4. The fill that will be generated will be used in the road to improve grade where needed. What will not be used for the road will be hauled to an appropriate disposal area.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

There is potential for some erosion to occur as a result of road construction and harvest activities associated with this proposal. This sale will conform to Forest Practice regulations. Management techniques have been identified where appropriate to minimize or eliminate the risk of erosion and mass wasting. No harvest will occur within identified riparian management zones. Please refer to B.1.d.5 for management activities designed to minimize erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

Approximately 4% of the proposal area will be covered with existing and new roads (native surface materials) and will be grass seeded upon completion of the project.

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)

Unit boundaries were specifically located away from all identified Type Np or greater streams and all identified wetlands. There is a Type Ns water that runs through Unit 3. This stream will have an equipment limitation zone (ELZ) placed around it (30 ft ELZ). If more than 10% of the streambed is disturbed during harvest operations, mitigation parameters will be used (water bar skid trails to prevent sediment delivery to stream, place slash or straw bails in streambed to prevent sediment delivery and possible grass seeding the stream bank to prevent erosion). Existing roads will be utilized where possible. Timing restrictions are also being implemented as part of this proposal. See B.1.d.5., above.

Many roads used for this harvest have gates currently installed. These gates will remain locked at the completion of operations to prevent road use and potential damage due to inappropriate uses. Erosion will also be reduced as these roads will be revegetated by grass seeding.

Coordinated skid trail use and landing locations, contract provisions coupled with effective contract administration and normal road maintenance are expected to minimize erosion, rutting, and compaction. Steeper skid trails will be water barred and grass seeded or have slash placed in them to prevent surface erosion. Water bars, rolling dips, out sloping and ditches will be used to direct water off roads and onto the forest floor. Hauling on all roads, including county roads, will be suspended during extreme wet weather conditions and during spring breakup when surface rutting could occur. Ditch lines and landings will be revegitated.

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2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling*, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

This proposed timber harvest will involve vehicle emissions from logging, yarding, and hauling equipment; dust from road construction and logging activities; and dust from log hauling activities. Such emissions are not expected to have a significant impact to air quality. If broadcast burning or slash burning occurs, it will adhere to the state's Smoke Management Program.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no off-site sources of emissions or odor that will affect the proposal.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Dust abatement will be performed as needed from July 1 to November 1 to reduce dust along all DNR and private access roads.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map and forest practice base maps.)*

Yes, see Forest Practice Activity Map for stream locations.

Type Np stream segment: There is one Type Np stream segment located within the vicinity of harvest Unit 3. It has been bounded out of the unit with timber sale tags and flashers.

Type Ns stream segment: There is one Type Ns stream segment located within the harvest Unit 3, see B.1.h.

Type B wetland: There is one Type B wetland (less than five acres) adjacent to Unit 2. The wetland has been bounded out of the unit with timber sale tags and flashers.

a) Downstream water bodies:

All water from all units eventually reach the Kettle River.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Stream	Np	1	50 feet
Stream	Ns	1	30 foot ELZ
Wetland	B	1	25 feet

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

The above three identified riparian areas occur in Section 16 of Township 39 North, Range 33 East, W.M. (the wetland travels into Section 15). The Type Np water is a segment within Unit 3. The Type Ns water is a segment that runs east to west within Unit 3. The Type B wetland is bordered by Unit 2.

The Type Np water is a segment that goes subsurface within Unit 3 and is approximately 500 feet in length. Approximately two acres were bound out of the unit to accommodate this segment. RMZ buffers are at least 50 feet on all sides.

The Type Ns water within Unit 3 is approximately 2,200 feet in length and travels outside of the unit boundary then back in once. The stream bed has been identified on the ground with white ribbon and a 30 foot ELZ will be maintained throughout its stream reach. FPA requirements will be met or exceeded. If more than 10% of the streambed is disturbed during harvest operations, mitigation parameters will be used, water bar skid trails to prevent sediment delivery to stream, place slash or straw bails in streambed to prevent sediment delivery and possible grass seeding the stream bank to prevent erosion. Also, leave trees were concentrated within the ELZ to minimize equipment work within the ELZ.

The Type B wetland is located on the east boundary of Unit 2. A 25 foot wetland management zone (WMZ) has been placed on the unit boundary. However, the existing E393316E road travels through the WMZ. This portion of the road will be monitored by the compliance officer to determine if protection measures above normal road maintenance will be necessary (such as, placing rock on the running surface, extra grass seeding, insloping and ditching road, etc.).

Best management practices outlined by the DNR in the Curlew Road Maintenance and Abandonment Plan will be utilized. Furthermore, all roads and skid trails will be grass seeded upon completion of this project to further reduce potential soil erosion as a result of this project.

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans. **03012987**
☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map.)*
Description (include culverts):

See above B.3.a.1.c. for proposed work in or near the described waters.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Not applicable to this proposal. There will not be any fill or dredge material placed in or removed from surface waters or wetlands.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*
☒*No* ☐*Yes, description:*

No work requiring withdrawals or diversions planned.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒*No* ☐*Yes, describe location:*

This proposal does not lie within a 100-year floodplain.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒*No* ☐*Yes, type and volume:*

This proposal does not involve any discharges of waste materials to surface waters.

7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?

Yes, areas within the WAU may be susceptible to erosion. Surface erosion is a naturally occurring process and will continue with or without management. The potential for eroded material to enter surface water is low, as there are few areas of surface water within the proposal area, and those that are have been buffered by no harvest areas. Mitigation measures designed to limit soil erosion can be found in B.1.d.5 and B.3.a.1.c.

8) Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?
☒*No* ☐*Yes, describe changes and possible causes:*

No, however, there is a history of periodic high water events that flush streams, which seem to be a part of the natural process. There are isolated occurrences of livestock use, which may also cause local impacts to individual streams. There is no evidence of significant change in the channels throughout the two WAUs.

9) Could this proposal affect water quality based on the answers to the questions 1-8 above?
☒*No* ☐*Yes, explain:*

There is little or no adverse impact to stream flow or water quality anticipated as a result of activities associated with this proposal. Sale unit design, skidding patterns, distance from water, operating seasons, and prescriptions should minimize any potential for adverse impacts. See B.1.d.5., and B.1.h., for more information.

10) What are the approximate road miles per square mile in the WAU and sub-basin(s)?

Road miles per square mile in the Curlew Creek WAU are 2.6 miles per section. DNR ownership in the WAU (6%) contains approximately 1.3 miles of road per section.

Road miles per square mile in the Emanual Creek WAU are 2.5 miles per section. DNR ownership in the WAU (4%) contains approximately 1.3 miles of road per section

Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒*No* ☐*Yes, describe:*

11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, ***STOP HERE*** *and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☐*No* ☒*Yes, approximate percent of WAU in significant ROS zone.*
Approximate percent of sub-basin(s):

Curlew Creek WAU: Approximately 86% of the WAU is in the rain-on-snow zone.
Emanual Creek WAU: Approximately 72% of the WAU is in the rain-on-snow zone.

12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?

Based on photo interpretation (1995 Ortho Photos) adjusted for recent FPAs (calculated FPA acres by the percentage of the rain-on-snow zone that is within WAU), approximately 71% of the rain-on-snow zone within the Emanual Creek WAU can be rated as hydrologically mature and approximately 72% of the rain-on-snow zone within the Curlew Creek WAU can be rated as hydrologically mature. The USFS activities within the two WAUs described in A.13. if calculated into the hydrologic maturity for the WAUs would not change the percentages significantly.

13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☒*No* ☐*Yes, describe observations:*

No, however, there is evidence of past high water events within the Curlew Creek and Emanual Creek WAUs. These events have occurred as natural events in the history and evolution of the WAUs.

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

Based on aerial photos, site visits, and GIS data, this proposal was determined to be below the threshold in both WAUs for potential impacts to peak flow. At completion of the proposal, it is expected to remain below the threshold. Current and reasonably foreseeable activities have been planned with water quality/flow in mind, and care has been taken to minimize the potential for adverse impacts. See Sections A.11.c, A. 13, B.1.d.5, B.1.h, B.3.a.1.c., and B.3.a.7 above.

Due to mitigating factors such as harvest design, prescription, proper road maintenance, construction, reconstruction, and operating season restrictions, there should be little to no increase in peak flows in areas associated with the proposal. This proposal will impact approximately 1% of the Emanual Creek WAU and less than 1% of the Curlew Creek WAU. These combined with other management activities within the WAUs are not expected to have a significant contibution to to peak flows.

Federal ownership is approximately 48% of the Emanual Creek WAU, and 17% of the Curlew Creek WAU. Most of that ownership is expected to be maintained in a mature condition. The Colvile National Forest has no plans in place for harvest activities in the forseable future. They may continue to implement their prescribed burning program in areas of the two WAUs, however, no information was given to support that. These past and potential future activities are not expected to significantly affect peak flows due to rain-on-snow events.

It is anticipated that management on private land will continue. About 47% of the Emanual Creek WAU is under private ownership, and about 77% of the Curlew Creek WAU is also under private ownership. Much of the private land is non-forested and would not affect hydrologic maturity. Current and expired (last seven years) Forest Practice applications represent a small portion of total WAU acreage and the majority of those harvest activities were uneven-age management stratagies.

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☐*No* ☒*Yes, possible impacts:*

The Kettle River is located down stream of the proposal (both WAUs drain into the river). This river is used in a recreational capacity.

There should be no significant changes to surface water quantities as a result of this proposal. All activities associated with this proposal have been designed to avoid any potential adverse impact to water quantity and/or quality.

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

Harvest boundaries are buffered away from any typed water. Proper road maintenance and cross drains will ensure that water accumulating on running surfaces will be dispersed onto the undisturbed forest floor helping to reduce erosion. Skid trails on slopes greater than 30% will be water barred and or have slash placed on them to increase infiltration of surface water and reduce runoff as well as erosion. Several roads will be closed after harvest operations. This will limit road use after harvest is completed which will also reduce road surface rutting and encourage vegetation to grow freely. Harvest areas will be replanted and roads, landings, and skid trails will be grass seeded as necessary to insure rapid re-establishment of vegetation back on the landscape.
Also see B.3.a.1.c and B.3.a.14

b. Ground *Water*:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

No ground water will be withdrawn as part of this project. Ground water should not be significantly changed by this project. Some surface water discharge (around culverts, or diverted by water bars, or trapped by logging slash) may percolate to ground water.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste materials will be discharged into ground water.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☐*No* ☒*Yes, describe:*

See B.3.a.15

a) *Note protection measures, if any.*

Proposed harvest boundaries are located away from any typed water. Proper road maintenance and cross drainage are expected to ensure that water accumulating on running surfaces will be dispersed onto the undisturbed forest floor. Proposed harvest areas will be replanted to ensure rapid reestablishment of forests back on the landscape. The actual change to the amount of forested vegetation cover will be minimal considering the overall size and ownership of the WAU, also see B.3.a.14. & B.3.a.1.c

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Snowmelt and rain are the main sources of water runoff. Runoff that is intercepted by road surfaces and ditches will be diverted onto the undisturbed forest floor where possible.

2) Could waste materials enter ground or surface waters? If so, generally describe.

a) Note protection measures, if any.

Minor amounts of logging slash may enter some surface waters. Slash will be removed by hand if this occurs. Also, this proposal will employ best management practices outlined by the DNR in the Curlew Road Maintenance and Abandonment Plan.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

Best management practices outlined by the DNR in the Curlew Road Maintenance and Abandonment Plan will be utilized.

4. Plants

a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☐alder, ☐maple, ☒aspen, ☒*cottonwood,* ☒*western larch,* ☐*birch,* ☐other:
☒evergreen tree: ☒*Douglas fir,* ☐*grand fir,* ☐*Pacific silver fir,* ☒*ponderosa pine,* ☐*lodgepole pine,* ☐*western hemlock,* ☐*mountain hemlock,* ☒*Englemann spruce,* ☐*Sitka spruce,* ☐*red cedar,* ☐*yellow cedar,* ☐other:
☒shrubs: ☐*huckleberry,* ☐*salmonberry,* ☐*salal,* ☒*other:* Service Berry, Nine Bark, Snow Berry, and Sage Brush
☒grass
☐pasture
☐crop or grain
☐wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☐skunk cabbage, ☐*devil's club,* ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☐other types of vegetation:
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")

Unit 1 is bordered to the south by a rock knob on the eastern half and a generally west facing slope on the western half with openings in the timber. The timber to the south (there is very little on the rock knob) is primarily ponderosa pine and Douglas fir 30 to 120 years of age. To the east, Unit 1 is bordered by a generally east facing slope with 30 to 120 year old ponderosa pine and Douglas fir. To the west, the unit is bordered by a generally northwest facing slope composed of Douglas fir, western larch and ponderosa pine the south half of the west border was harvested in 2005 (uneven-age management) so the age of this stand is 0 to 80 years of age. To the north of the unit, the slope is generally northwest facing and composed of Douglas fir and ponderosa pine timber types. The eastern half of the north facing boundary has been harvested within the last 15 years. On all sides there is a small western larch component that is seen in the moister sites (draws, swales etc.). Most of this unit has a multi-layered canopy with openings, and is dominated by Douglas fir in shaded areas and ponderosa pine in the more exposed areas.

Unit 2 is bordered to the south by a generally northwest facing slope composed of timber 20 to 120 years of age. This bordering stand is dominated by Douglas fir in the shaded areas and ponderosa pine in the more exposed areas. Unit 2 is bordered to the west and north by Unit 3 which has a multi-layered canopy with openings and is dominated by Douglas fir in shaded areas and ponderosa pine in the more exposed areas. To the east, this unit is bordered by a generally northeast facing slope which is composed of openings and patches of mixed Douglas fir, western larch, and ponderosa pine timber between 20 to 120 years of age.

Unit 3 is bordered to the north by a ridge top that drops to the north (where Unit 4 is located). This area is typified by rock out crops and small patches of Douglas fir and ponderosa pine timber between 70 to 120 years of age. The unit is bordered to the west by a draw that drops down into Emanual Creek that contains Douglas fir between 80 to 120 years of age and to the east by patchy timbered ground with a westerly aspect. To the south, this unit is bordered by Unit 2, which is composed of a multilayered canopy of Douglas fir and ponderosa pine situated on northwesterly facing aspect. Most of Unit 3 has a multiple layered canopy dominated by Douglas fir and ponderosa pine with pockets of western larch.

Unit 4 is bordered to the south by a ridge top that drops off to the north. This area is typified by rock out crops and small patches of Douglas fir and ponderosa pine timber between 70 to 120 years of age. To the west it is bordered by 70 to 120 year old Douglas fir on a north facing slope (patchy timber and rock outcrops). To the east it is bordered by 70 to 120 year old Douglas fir that has had recent (within the last four or more years) activity on it in the form of geo surveys and drilling conducted by the land owner for mineral exploration (this area is on a northerly facing slope). To the north it is bordered by a north facing slope composed of Douglas fir and some ponderosa pine between 20 to 60 years in age. Most of this unit is dominated by Douglas fir. It is mostly a single layered canopy created by a stand replacing fire in the 1930's.

Unit 5 is bordered to the south, east, and west by north facing slopes composed of Douglas fir with areas of ponderosa pine and western larch between 70 to 120 years in age. To the north this unit is bounded by the West Kettle River Road along the Kettle River (cottonwood and aspen). This unit is dominated by Douglas fir with ponderosa pine on exposed areas and pockets of western larch within the tighter canopies between 70 to 120 years of age.

2) *Retention tree plan:*

Approximately eight to 14 trees per acre will be left in Units 1, 2, 4, and 5 as legacy and wildlife reserve trees. Leave trees will be scattered throughout these units. Within Unit 3, eight to 23 trees per acre will be left as legacy and reserve trees depending on stocking levels of the advanced regeneration. Where advanced regeneration exceeds 150 TPA, eight to 14 trees per acre will be left in this unit. Other areas not meeting this standard, 21 to 23 trees per acre will be left. Within Unit 1, the western larch leave trees that are severely infected with dwarf mistletoe will be girdled and left standing to reduce the threat of disease spreading to the western larch that will be planted within the unit. The number of trees not being girdled in this unit will meet or exceed DNR legacy tree requirements. In all units, leave trees will be from the dominate and co-dominate classes of the healthiest trees available giving preference to ponderosa pine and mistletoe-free western larch. The largest and oldest leave trees were selected in compliance with Engrossed Substitute Senate Bill 6384 (Supplemental Budget Bill). Naturally occurring openings will be scattered throughout the units and a few small openings will be created due to *Armillaria* root disease infestations affecting the Douglas fir component of the units.

c. List threatened or endangered *plant* species known to be on or near the site.

No threatened or endangered plant species are known to be on or near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None

5. Animal

a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☒eagle, ☒songbirds, ☐*pigeon*, ☐other:
mammals: ☒deer, ☒bear, ☐elk, ☐beaver, ☒other: Moose
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☒*talus slopes*, ☐*caves*, ☒*cliffs*, ☐*oak woodlands*, ☐*balds*, ☐*mineral springs*

b. List any threatened or endangered species known to be on or near the site *(include federal- and state-listed species).*

None are known or were shown in the TRAX database.

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☒*Other migration route:* *Explain if any boxes checked:*

All of Washington is considered part of the Pacific Flyway. No impacts are anticipated as a result of this proposal. Mule deer, whitetail deer, black bear, and moose may use the general area annually during migration. Due to the proposed activities, there may be increased potential for the site to be used more often as part of the overall migration route. The regeneration of grasses, forbs, low shrubs, bushes, etc. may create more forage habitat opportunities for deer and other herbivores.

d. Proposed measures to preserve or enhance wildlife, if any:

1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.

This proposal is expected to have an overall positive effect on wildlife species that favor early seral forest habitats. Leave trees were selected from the largest and best available as much as possible in each harvest unit for legacy and wildlife reserve trees. All dead and standing trees that can be left without creating a safety hazard will be left during harvest operations. Riparian management zone buffers have been placed on all typed waters where necessary as required by Washington State Forest Practice rules. Gates will remain in place at the completion of the proposal to minimize use.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Most logging and log hauling equipment will require the use of diesel fuel.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No, the project will not affect the potential use of solar energy by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

No energy conservation features are included in the plans of this proposal.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

1) Describe special emergency services that might be required.

Washington Department of Ecology will be notified if any spills occur and appropriate action will be taken.

2) Proposed measures to reduce or control environmental health hazards, if any:

There are no current foreseeable environmental health hazards as a result of this project. 03012987

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

No noises in the area will affect the proposal

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

During road construction, road maintenance, and harvest activities, there will be some noise associated with heavy equipment, chain saws, and log truck operations.

3) Proposed measures to reduce or control noise impacts, if any:

Noise levels are not expected to result in significant impact. Therefore, no mitigating measures are planned.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? *(Site includes the complete proposal, e.g. rock pits and access roads.)*

The site is currently used for timber production, cattle grazing, and dispersed recreational activities such as hunting, wood cutting, and hiking. In addition to these uses for DNR managed lands, mine exploration and mining activities are occurring on adjacent ownerships near the proposal.

b. Has the site been used for agriculture? If so, describe.

Yes, the site is currently being utilized by cattle under an existing lease.

c. Describe any structures on the site.

There are no known structures either historical or modern known to be on the site.

d. Will any structures be demolished? If so, what?

No structures will be demolished as a result of this proposal.

e. What is the current zoning classification of the site?

No zoning applies.

f. What is the current comprehensive plan designation of the site?

Rural

g. If applicable, what is the current shoreline master program designation of the site?

There is no shoreline master program designation of this site.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No part of this site has been classified as "environmentally sensitive."

i. Approximately how many people would reside or work in the completed project?

No people are anticipated to work in or reside in the completed project area.

j. Approximately how many people would the completed project displace?

The completed project will not displace anyone.

k. Proposed measures to avoid or reduce displacement impacts, if any:

The completed project will not displace anyone.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

This proposal shall maintain or enhance compatibility with existing and projected land uses such as timber production, grazing, dispersed recreational activities and use by wildlife for forage, roosting, travel, and cover.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

No housing will be needed.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No housing will be eliminated.

c. Proposed measures to reduce or control housing impacts, if any:

There will be no housing impacts as a result of this proposal.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?

03012987

There will be no structures built as a result of this proposal.

b. What views in the immediate vicinity would be altered or obstructed?

1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
☐*No* ☒*Yes, viewing location:*

There are several residences within the vicinity of the proposal that will be visually impacted. In particular, Unit 4 will be visible from the West Kettle River Road and The Customs Road north of the Kettle River. Both of which have residences along them.

Unit 5 is immediately adjacent to the West Kettle River Road and will be visible to vehicular traffic traveling along this road.

2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
☒*No* ☐*Yes, scenic corridor name:*

This proposal is not visible from a designated scenic corridor, however, it will be visible along the West Kettle River and Customs roads.

3) *How will this proposal affect any views described in 1) or 2) above?*

This area is actively managed for timber production, the views that will be affected will consist primarily of opening up the timber allowing some residences to view vistas not seen before.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Visual considerations were utilized during planning to minimize the visual impacts from the local transportation system and adjacent homeowners. Due to the general land use (timber management and mining) and the visual terrain features of the area, the visual impact will be similar to other activities that have occurred within the area. The proposed management activity planned for this project is not inconsistent with current management activities in the vicinity. Leave trees described in B.4.b.2 are also expected to help in maintaining the visual integrity of the site.

Unit 4 will be line skid to the top of the unit. This technique is expected to reduce the number of highly visible skid trails that would be associated with ground based techniques. Line skid corridors will be perpendicular to the slope, thus the corridors from the West Kettle River Road are expected to be visible momentarily as traffic travels the road. In addition, more leave trees will be left in Units 4 and 5 than required by Forest Practices to reduce the potential visual impacts. In addition seedlings will be planted on all units. Grass seeding will occur on landings, skid trails and roadways which is also expected to help reduce or control aesthetic impacts.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The proposal will not produce any light or glare.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

The proposal will not produce any light or glare.

c. What existing off-site sources of light or glare may affect your proposal?

No off-site sources of light or glare will affect the proposal.

d. Proposed measures to reduce or control light and glare impacts, if any:

There are no measures to reduce or control light and glare impacts as a result of this proposal.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are no designated recreational areas in the proposal area. Informal activities such as hunting, hiking, and camping, may occur on the site or within the immediate vicinity.

b. Would the proposed project displace any existing recreational uses? If so, describe:

During harvest operations, areas of the timber sale and haul routes will be unsafe for recreation use due to timber harvesting operations.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

During harvesting operations, warning signs will be posted on the West Kettle River Road, the Lundimo Meadows County Road, and the Franson Peak Road.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No, there are no places, or objects in, or proposed for national, state, or local preservation registers known to be on or next to the site.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

There are no landmarks of importance known to be on the site.

c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

If an unknown historic or cultural resource is discovered during the operation, the following process will occur:

1) Cease operations affecting the discovered site.
2) Physically identify the site on the ground so it can be located and impacts mitigated (a buffer if necessary).
3) Contact region state lands assistant and district manager, and work in collaboration on timing, confidentiality, and notification of tribes and other affected parties.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Lundimo Meadows County Road, Franson Peak Road, Highway 21, and West Kettle River Road.

1) Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?

There currently are no transportation problems to which the proposal would contribute. It is possible that this proposal could add noise, dust, maintenance or safety problems on the West Kettle River Road, the Lundimo Meadows County Road, and the Franson Peak Road. Warning signs will be posted informing the public of timber harvesting and hauling activities.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The site is not currently served by public transit.

c. How many parking spaces would the completed project have? How many would the project eliminate?

The completed project would not have any parking spaces.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Yes, see A.11.

1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?

This proposal is not expected to have a significant impact on the current transportation system. Any impact at all will be temporary and limited to the period of time during which operations are being conducted. Access to existing roads in the sale area may be restricted during operations as needed for public safety. No public use will be allowed on newly constructed or reconstructed roads during the sale activity.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No, the project will not use water, rail, or air transportation.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

This proposal should result in no increase in vehicle trips per day upon completion of timber sale. However, log hauling may involve from approximately five to ten loads per day during the course of operations. Construction of the road through Unit

4 will also require waste material to be hauled from the site to a designated disposal area. This will be only temporary and limited to the short time period of this activity. Also, see B.14.d.1., above.

g. Proposed measures to reduce or control transportation impacts, if any: 03012987

Log hauling will not be permitted from March 15 to May 15 due to spring breakup. Additionally, warning signs will be posted to inform the public of potential hazards.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

The project would not result in an increased need for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

There are no measures planned to reduce or control impacts on public services, as there are no impacts expected as a result of this proposal.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

There are no utilities proposed for this project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: _____ Date: 7-18-06
Sam Steinshouer, Highlands District Forester

Reviewed by: _____ Date: 7/18/06
Shane Knowlton, Highlands District Unit Forester

Reviewed by: _____ Date: 7/18/06
Tim Vugteveen, Highlands District Manager

Reviewed by: _____ Date: 7/18/06
Bob McKellar, Management Forester